

NAZIV PREDMETA		Textual and graphic programs for physicists				
Code	PMP071	Year of study	1			
Course teacher	Assistant professor Martina Požar	Credits (ECTS)	1,0			
Associate teachers		Type of instruction (number of hours)	P	S	V	T
					30	
Status of the course	obligatory	Percentage of application of e-learning				
OPIS PREDMETA						
Course objectives	1) Ability to use Gnuplot. 2) Ability to use LaTeX.					
Course enrolment requirements and entry competences required for the course	None.					
Learning outcomes expected at the level of the course (4 to 10 learning outcomes)	After successfully mastering the course, students will be able to use the programs as follows: 1) Gnuplot - draw 2D and 3D graphs, - fit functions on numerical data, - write scripts that generate drawings; 2) LaTeX - make presentations, - write a seminar and laboratory report, - edit the content (text, images, formulas, tables...) for publication in the form of a scientific article, book...					
Course content broken down in detail by weekly class schedule (syllabus)	1. Gnuplot (10h) (3h) Drawing 2D graphs. (2h) Fitting functions to numerical data. (2h) Schematic representations using geometric figures. (3h) Drawing 3D graphs. 2. LaTeX (20h) (3h) Introduction to LaTeX2e. Text input and formatting. (5h) Writing mathematical formulas (equations). (2h) LaTeX environments. List. Tables. (2h) Insert images and draw with TikZ. (2h) Structuring a document (article, book...). (2h) Definition of own commands and environments. (2h) Defining mathematical environments such as theorems. (2h) Making presentations using the beamer package.					
Format of instruction	Exercises and independent work.					

Student responsibilities	Attendance and commitment of students in class, making assignments with help and independently in class or at home.
Screening student work (<i>name the proportion of ECTS credits for each activity so that the total number of ECTS credits is equal to the ECTS value of the course</i>)	Class attendance, 0.7 ECTS Practical work, 0.3 ECTS
Grading and evaluating student work in class and at the final exam	During the semester, the student's work on the computer is monitored and scored (20% of the final mark) and exams for LaTeX (50%) and Gnuplot (30%) are written. The final grade is formed according to the following list: [50.60>% = sufficient (2) [60.75>% = good (3) (75.90>% = very good (4) [90,100]% = excellent (5)
Required literature (available in the library and via other media)	[1] Š. Ungar, Not so short introduction to TeX with emphasis on LaTeX2ε, University of Osijek, Department of Mathematics, Osijek 2002. (web) [2] Instructions that come with the Gnuplot software package.
Optional literature (at the time of submission of study programme proposal)	[1] Thomas Williams, Colin Kelley: An Interactive Plotting Program gnuplot 5.0, URL: http://www.gnuplot.info/docs_5.0/gnuplot.pdf , siječanj 2016. [2] ShareLaTeX Documentation, URL: https://www.sharelatex.com/learn .
Quality assurance methods that ensure the acquisition of exit competences	Teachers, who teach other similar subjects, cooperate and jointly take care of the quality of teaching. Students can send anonymous comments related to the teaching method via the web application. Test result statistics. Student evaluation through an anonymous survey at the end of the course. The survey is conducted according to the regulations of the University of Split.
Other (as the proposer wishes to add)	